



ITW

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q80999

Mayumi TAKAMORI, et al.

Appln. No.: 10/827,448

Group Art Unit: 1752

Confirmation No.: not yet assigned

Examiner: not yet assigned

Filed: April 20, 2004

For: NOVEL ORGANOMETALLIC IRIIDIUM COMPOUND, PROCESS OF PRODUCING
THE SAME, AND PROCESS OF PRODUCING THIN FILM

INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §§ 1.97 and 1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant hereby notifies the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form and/or listed herein and which the Examiner may deem material to patentability of the claims of the above-identified application.

One copy of each of the listed documents, other than any U.S. patents and patent publications, is submitted herewith.

The present Information Disclosure Statement is being filed: (1) No later than three months from the application's filing date; (2) Before the mailing date of the first Office Action on the merits (whichever is later); or (3) Before the mailing date of the first Office Action after

INFORMATION DISCLOSURE STATEMENT

U.S. Appln. No.: 10/827,448

Attorney Docket No. Q80999

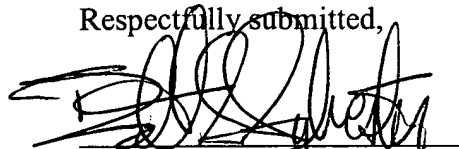
filing a request for continued examination (RCE) under §1.114, and therefore, no Statement under 37 C.F.R. § 1.97(e) or fee under 37 C.F.R. § 1.17(p) is required.

In compliance with the concise explanation requirement under 37 C.F.R. § 1.98(a)(3) for foreign language documents, Applicant submits the following explanations: An English language abstract and machine translation, submitted herewith, constitute a concise statement of relevance for JPA No. 11-292288.

The publication date of the Morozova et al. document listed on page 2 of the Form PTO/SB/08 is not readily available to Applicant.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

Respectfully submitted,



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WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: October 7, 2004

Substitute for Form 1449 A & B/PTO

Complete if Known

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

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of

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Application Number

10/827,448

Confirmation Number

Filing Date

April 20, 2004

First Named Inventor

Mayumi TAKAMORI

Art Unit

Examiner Name

Attorney Docket Number

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U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		Number	Kind Code ² (if known)		
		US			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Translation ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)			
		JP	11-292888	A	10-26-1999	Kojundo Chem. Lab Co., Ltd.	Abstract

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.	Translation ⁶
		CHAPMAN AND HALL, "Dictionary of Organometallic Compounds", vol. one, Ag-Mn, Iridium entry, pp. 1152-1197, 1984	
		WILKINSON, et al., "COMPREHENSIVE ORGANOMETALLIC CHEMISTRY, The Synthesis, Reactions and Structures of Organometallic Compounds", vol. 5, pp. 303-419, 1982	
		ABEL, et al., "Comprehensive Organometallic Chemistry II, A Review of the Literature 1982-1994", vol. 8, Cobalt, Rhodium, and Iridium, pp. 541-628, 1995	
		SHIMIZU, et al., "MOCVD OF Ir AND IrO ₂ , THIN FILMS FOR PZT CAPACITORS", Materials Research Society Symp. Proc. vol. 655, pp. CC1.10.1-CC1.10.6, 2001	
		ONDERDELINDEN, et al., "Chloro- and Bromo-(alkene)iridium(I) Complexes", Inorganica Chimica Acta, vol. 6:3, pp. 420-426, September 1972	
		WINKHAUS, et al., "Iridium(I)-Olefinkomplexe", Chem. Ber. vol. 99, pp. 3610-3618, 1966	
		ORO, "π-Cyclopentadienyl(butadiene)iridium(I)", Inorganica Chimica Acta, 21 (1977) L6	
		MÜLLER, et al., "π-Olefin-Iridium Komplexe, XIX *. Synthese, Struktur und Reaktivität von Bis(dien)iridium-benzyl-, cyclopropyl-, -vinyl- und -cyclopentadienyl-Komplexen", Journal of Organometallic Chemistry, 471 (1994) pp. 249-258	
		JOHNSON, et al., "Reactivity of Co-ordinated Ligands. PartXIII. Electrophilic Substitution Reactions of Cyclohexa-1,3-diene Complexes of Rhodium(I) and Iridium(I)", J.C.S. Dalton, pp. 2084-2089 (1972)	
		MÜLLER, et al., "π-OLEFIN-IRIDIUM KOMPLEXE IV. UMSETZUNGEN VON CHLORO-DIEN-IRIDIUM-VERBINDUNGEN MIT LITHIUMORGANYLEN", Journal of Organometallic Chemistry, 191 (1980) 303-311	
		GREEN, et al., "He I and He II Photoelectron Spectroscopic Studies of the Bonding in Cobalt, Rhodium, and Iridium Cyclopentadienyl Diene Complexes", Organometallics, 1984, 3, 211-217	

Examiner Signature

Date Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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				Application Number	10/827,448
				Confirmation Number	
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				First Named Inventor	Mayumi TAKAMORI
				Art Unit	
Examiner Name					
Sheet	2	of	2	Attorney Docket Number	Q80999

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NON PATENT LITERATURE DOCUMENTS			
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		MOSELEY, et al., "Pentamethylcyclopentadienyl-rhodium and -iridium Halides. Part III. Reactions with Cyclohexadienes", J. Chem. Soc., 1970, pp. 2884-2889	
		HOKE, et al., "Low-temperature Vapour Deposition of High-purity Iridium Coatings from Cyclooctadiene Complexes of Iridium, Synthesis of a Novel Liquid Iridium Chemical Vapour Deposition Precursor", J. Mater. Chem., 1991, 1(4), 551-554	
		MOROZOVA, et al., "Thermal Properties of Ir(I) Precursors: Acetylacetonato(1,5-Cyclooctadiene)Iridium(I) and (Methylcyclopentadienyl)(1,5-Cyclooctadiene)Iridium(I)", Institute of Inorganic Chemistry of Siberian Branch of Russian Academy of Sciences	
		WINKHAUS, et al., "Iridium (I)- Dioléfinkomplexe", Z. Naturforschg. 20b, 602-603 (1965)	
		BEZRUKOVA, et al., "Cyclohexa-1, 3-diene in Synthesis of η^4 -diene', η^5 -dienil and η^6 Arene derivatives of platinum metals, Nesmeyanova Institute of element-organic complexes, Academy of Science, USSR, pp. 2071-2076 (1986)	

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